

Claims

1. A process for producing a solution of a gas in a liquid in which the gas is soluble, the solution having a predetermined concentration up to saturation, **characterised in that** the gas and the liquid are brought together under controlled supply in a proportion corresponding to the predetermined concentration of the solution, in that the gas and the liquid are caused to form a stream passing through a common conduit, in that the gas and the liquid in the stream are caused to intermix under the action of gravity, and in that the intermixing is repeated before the gas and the liquid have separated, so that the gas is substantially absorbed in the liquid, forming a gas-liquid solution of the predetermined concentration.
2. A process according to claim 1, **characterised in that** the stream is brought into turbulence for intensifying the intermixing of the gas and the liquid.
3. A process according to claims 1 and 2, **characterised in that** the intermixing is carried out at a pressure above the atmospheric pressure.
4. A process according to any one of claims 1 to 3, **characterised in that** the gas is chlorine and the liquid is water.
5. Apparatus for performing the process according to claim 1, **characterised** by a continuous tubular coil formed with a plurality of upwardly and downwardly directed tubular parts.
6. Apparatus according to claim 5, **characterised in that** elements producing turbulence are provided in the tubular coil.
7. Apparatus according to claims 5 and 6, **characterised by** a pressure sustaining valve which maintains a predetermined overpressure in the conduit.

8. Apparatus according to any one of claims 5 to 7, **characterised** in that at least the tubular coil is installed in a protective pressure-proof enclosure.
9. Apparatus according to any one of claims 6 to 8, **characterised** in that the tubular coil provided with packing bodies and/or folds.
10. Apparatus according to any one of claims 5 to 8, **characterised** in that the tubular coil is shaped as a horizontal helix.